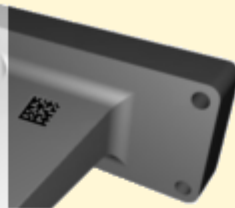


EASY TO USE

Simply place SSR™ fatigue gages wherever fatigue monitoring is needed. Gages meet NASA, ISO, and DOD standards for part marking and asset management. Gages are placed using industry-accepted laser marking, laser etching, or other methods.

During inspection cycles, or whenever necessary, SSRs™ are 'read' using DMI's compact, hand-held instruments. Standard instruments read a range of SSR™ sizes and types, and custom configurations are available for specialized applications.

Readings from SSR™ fatigue gages are analyzed and quantified by DMI's proprietary, high-speed analysis software. Results are produced real-time (multiple times per second) and are continuously displayed in a simple, user-friendly interface.



"The SSR fatigue gage is a unique, advanced, scalable technology for early fatigue detection in critical equipment. DMI's products address a largely un-served market need and stand to significantly impact the stress-analysis industry."

Henry V. Landau
President & CEO (Retired)
Vishay Measurements Group

DMI TEAM MEMBERS

Reginald Vachon, Ph.D., P.E.

Proven business leader, 38 years domestic and international industrial experience. Registered Engineer in six states, licensed to practice law and is admitted to practice before the US Supreme Court. Retired USAR Colonel.



William Ranson, Ph.D., P.E.

Extensive business development experience in the area of information technology and manufacturing supply chain. Recognized expert with 35 years experience in stress and fatigue analysis of mechanical systems.



Gregg Hovis, Ph.D., MCP

Product development and technical sales specialist. Over 20 years combined experience in DOD and DOE related technology development and marketing in the areas of robotics, nuclear defense, aerospace, and business intelligence.



Full biographies and a complete team list are available on our website.



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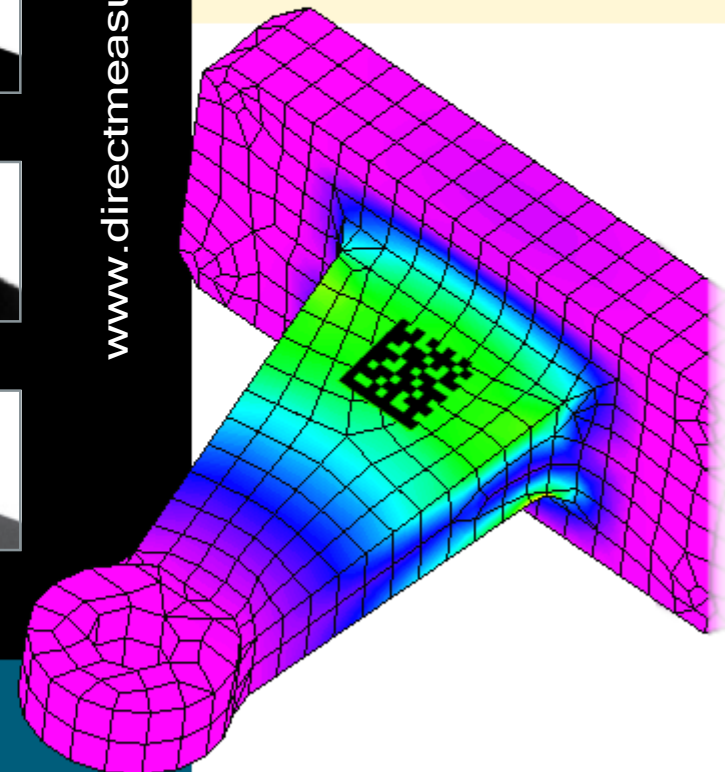
www.directmeasure.com

Direct Measurements, Inc.

SSR™ Fatigue Gage

**In-service fatigue detection using
2D part markings.**

- detect fatigue damage early
- avoid critical equipment failures
- promote operational readiness
- improve supply-chain efficiency
- leverage existing investments in asset-management marking



Direct Measurements, Inc.



SSR™ Fatigue Gage SOLUTION



FEATURES

Direct Measurement - SSRs™ provide an explicit, detectable "reading" of fatigue damage. Direct measurement improves accuracy and reduces system errors.

Remote Measurement - SSRs™ require no wiring or connections between the gage and the instrument. This allows SSR™ gages to be applied in seconds, whenever and wherever needed. Setup time is reduced, and range of application is extended with DMI's hand-held instruments and connection-free gages.

Powerful Monitoring and Analysis - DMI utilizes powerful computing technology and proprietary analysis software to deliver high-speed real-time readings from SSRs™. Monitoring of SSRs™ can optionally be single-point, real-time and continuous, or triggered by external event(s) as necessary.

Scalable - A notable advantage of the DMI technology is scalability. SSRs™ can be formed to almost any size or shape, making them suitable for large-scale applications as well as the emerging MEMS market.

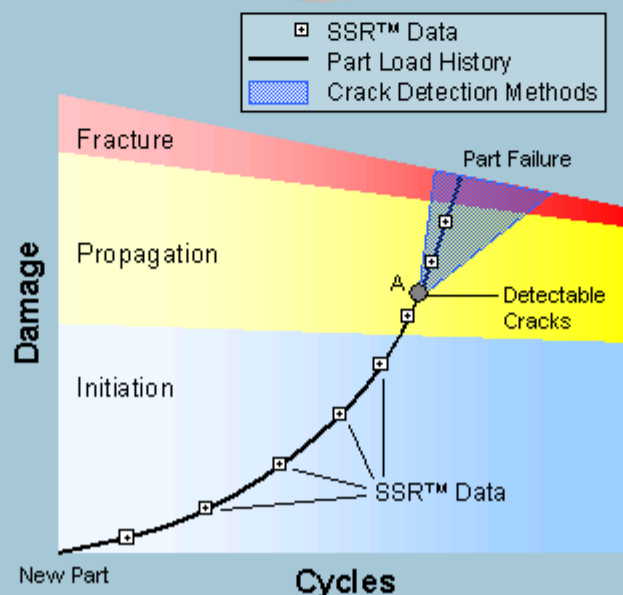
Sensor Spectrum - SSR™ technology is not limited to "visible-spectrum" monitoring. Magnetic, acoustic, or other electromagnetic sensors can be used.

Temperature Range - Direct application of the target to the surface in question and selection of the appropriate sensor allows monitoring over a wide range of temperatures from cryogenic to combustion.

CASE STUDY

Mission-critical parts subjected to fatigue accumulate damage with each load cycle. This is shown in the chart to the right. The solid line is the "actual" load history the part sees in service. Conventional fatigue detection methods only work beginning at point "A" where cracks are detectable, and end-of-life is near. With crack detection, cracks are managed to produce a "best-guess" failure path somewhere in the blue triangular region.

SSR™ fatigue gages measure damage throughout the part's life (i.e. points labeled "SSR™ Data"). Data from SSR fatigue gages helps define the actual load history for mission-critical parts, which significantly improves fatigue-life projections. SSR™ fatigue gages let you know both the absolute state of fatigue damage well before cracks form, and the rate at which damage is accumulating. This early information enhances forecasting of replacement-part stock and labor schedules, and helps avoid unexpected failures.



COMPARE

The SSR™ Fatigue Gage lets you monitor fatigue damage throughout the life of the part. Early damage assessments not only help avoid failures, but provide critical supply-chain information for better inventory and spare parts management.

What's more, SSRs™ leverage existing investments in asset management and accountability marking programs. SSRs™ perform fatigue detection regardless of the symbolic information held in the 2D symbol.



Other methods don't provide the information needed for full life-cycle management. End-of-life projections are difficult at best, and there's no early failure-avoidance data.

